

## A citizen science network for monitoring temporary (intermittent or ephemeral) streams

### Why monitor temporary streams?

Temporary streams – which stop flowing at certain times and/or places – are important for ecology and for managing our water resources. However, they are not well monitored, and that's where you can help. This citizen science initiative aims to fill the gaps in our knowledge by collecting visual observations of temporary streams in the UK and across Europe.



### Where and when shall I make my observations?

There are two ways to get involved, and you can do as much or as little as you like.

#### 1. The one-off

At any time, at any location along any temporary stream.

(Not sure if your stream is perennial or temporary? No problem. Record your observation and if you can, visit again to see if the flow condition has changed.)

#### 2. The project

At five or more locations along a temporary stream at least once a month from spring to autumn 2019 (e.g. during the last 7 days of each month between April and October 2019). More frequent or sustained observations are welcome.

(Missed a month? No problem. Carry on making the observations when you can.)

### The background information

This citizen science network is an initiative of a European project addressing the Science and Management of Intermittent Rivers & Ephemeral Streams ([www.smires.eu](http://www.smires.eu)). These field observations will complement valuable but scarce hydrological information in Europe and complement the [Intermittent Rivers Map](#), which is based on gauging station data. The CrowdWater app for recording observations was developed by SPOTTERON for the University of Zurich and is available for free for [iOS](#) and [Android](#) smartphones. It takes less than a minute to report an observation via the CrowdWater app and citizens who are very active will receive certificates of participation (signed by the University of Zurich and the Citizen Science Center Zurich). If no mobile phone signal is available, observations can be uploaded to the central database later. Data is freely available for download from the CrowdWater website. For more information on how to use the CrowdWater app, visit the [website](#) or watch the [introduction](#) video.

**Turn over to get started**

UK contacts:

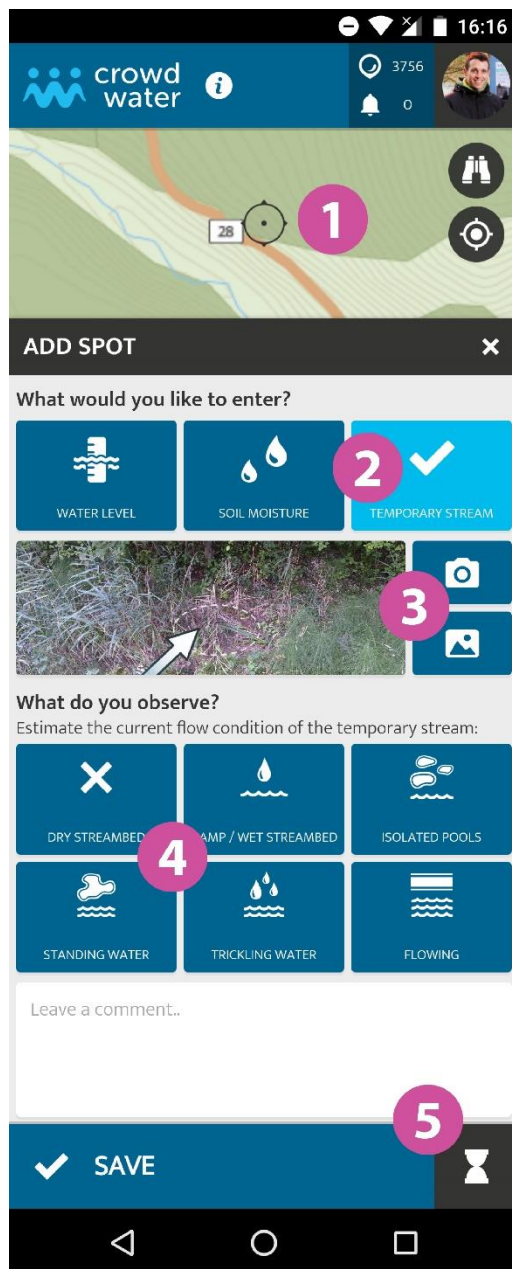
Catherine Sefton, Centre for Ecology & Hydrology [catsef@ceh.ac.uk](mailto:catsef@ceh.ac.uk),

Judy England, Environment Agency [judy.england@environment-agency.gov.uk](mailto:judy.england@environment-agency.gov.uk),

Rachel Stubbington, Nottingham Trent University [rachel.stubbington@ntu.ac.uk](mailto:rachel.stubbington@ntu.ac.uk)

## How do I record my observations?

First, download the CrowdWater App to your phone (available for iOS and Android). You are ready to be a citizen scientist! Click on the symbol at the bottom of the screen to get started, and follow the steps below. If your observation is at an existing spot, first select it on the map, then click on the symbol.



### Screenshot of the TEMPORARY STREAM category in the CrowdWater app.

- 1: Move the map if necessary to identify the correct location;
- 2: Select the TEMPORARY STREAM option;
- 3: Take a photograph of the site, and if you like, select and drag to show a measurement point or area on the photo;
- 4: Select the most suitable status of the stream:
  - DRY STREAMBED: no visible water and the streambed is dry
  - WET STREAMBED: no visible water, but the streambed is wet (for at least 2 cm depth below the surface)
  - ISOLATED POOLS: separated pools of water that are not visibly flowing are present on the streambed
  - STANDING WATER: water but no visible flow
  - TRICKLING WATER: very small flow, but clearly visible flowing water
  - FLOWING WATER: a continuous pathway of water that is flowing
- 5: Enter additional information, such as directions to the spot, so that the next participant can find it more easily, and SAVE your observation.

UK contacts:

Catherine Sefton, Centre for Ecology & Hydrology [catsef@ceh.ac.uk](mailto:catsef@ceh.ac.uk),

Judy England, Environment Agency [judy.england@environment-agency.gov.uk](mailto:judy.england@environment-agency.gov.uk),

Rachel Stubbington, Nottingham Trent University [rachel.stubbington@ntu.ac.uk](mailto:rachel.stubbington@ntu.ac.uk)